Animals

2-2 The student will demonstrate an understanding of the needs and characteristics of animals as they interact in their own distinct environments. (Life Science)

2.2.2 Classify animals (including mammals, birds, amphibians, reptiles, fish, and insects) according to their physical characteristics.
Taxonomy level: 2.3-A Understand Factual Knowledge

Previous/Future knowledge: This is the first time that students have studied specific examples of animals. This concept will be further developed in 4th grade (4-2.1) when the concepts of vertebrates and invertebrates will be introduced.

It is essential for students to know that there are many different ways that animals can be classified. One way to classify animals is by their physical characteristics. A *physical characteristic* is one that can be observed using the senses. Groups that animals can be classified into are:

Mammals
- Mammals have fur or hair, usually give birth to live young, and can nurse their young with milk.
- Mammals usually look like their parents and will be able to reproduce.
- Some examples of mammals are humans, dogs, or cows.

Birds
- Birds have bills or beaks, feathers, wings and lay eggs.
- Some examples of birds are parrots, ostriches, or penguins.

Amphibians
- Amphibians live both on land and in water.
- Amphibians have moist skins and no scales.
- Most amphibians lay eggs in water and the young breathe with gills before developing lungs and breathing air as adults.
- Some examples of amphibians are salamanders, frogs, or toads.

Reptiles
- Reptiles have scales or rough, dry skin.
- Some examples of reptiles are snakes, lizards, and turtles.

Fish
- Fish have fins, live in water, and breathe through gills.
- Some examples of fish are goldfish, guppies, or sharks.

Insects
- Insects have antennae, three body parts, and six legs and usually have wings.
- Examples of insects are ants, butterflies, or bees.
- Spiders are not insects.

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It is not essential for students to identify a large number of examples in each of the above categories or the difference between an invertebrate and a vertebrate.

Assessment Guidelines:
The objective of this indicator is to *classify* animals according to their physical characteristics; therefore, the primary focus of assessment should be to determine that an animal belongs into a particular group based on its physical characteristics. However, appropriate assessments should also require students to *recognize* an animal as being a mammal, bird, amphibian, reptile, fish or insect based on its physical characteristics; or *summarize* that the animals belong to a certain category based on their physical characteristics.